In the specification:

[0001] This application for a utility patent is a continuation in part of ~~a previously filed patent PCT/US98/20750, now U.S. patent application Ser. No. 09/308,392~~ U.S. Patent Application Serial No. 09/308,392, filed May 11, 1999, now U.S. Patent No. 6,268,161, which is a 371 of PCT/US98/20750, filed Sept. 30, 1998, and claims the benefit of U.S. Provisional Patent Application No. 60/194,042, filed Apr. 3, 2000.

In the Claims:

1. (Previously Twice Amended) A polymer matrix incorporating catalase co-immobilized with an analytic enzyme which generates hydrogen peroxide, wherein the concentration of the catalase in a pregel solution which gels to form the polymer matrix ranges from about 100 units/mL to about 1000 units/mL.

2. (Original) The polymer matrix of claim 1, which is pH-sensitive.

3. (Previously Amended) The polymer matrix of claim 1, which consists of between about 0.5 mol % and about 6 mol % cross-linking monomers.

4. (Original) The polymer matrix of claim 1, which when hydrated has a thickness ranging from about 0.1 mm to about 3.0 mm.

5. (Original) The polymer matrix of claim 1, wherein the analytic enzyme is glucose oxidase.

6. (Original) The polymer matrix of claim 1, wherein the matrix is composed of hydroxypropyl methacrylate, N,N-dimethylaminoethyl methacrylate, and tetraethyleneneglycol dimethacrylate.

7. (Previously Cancelled)

8. (Previously Cancelled)

9. (Previously Cancelled)

10. (Previously Cancelled)

11. (Previously Cancelled)

12. (Previously Cancelled)

13. (Previously Cancelled)

14. (Previously Cancelled)

15. (Currently Three Times Amended) A method of making a polymer matrix containing catalase co-immoblized with an analytic enzyme which generates hydrogen peroxide for use in a biosensor or analyte-responsive drug delivery device ~~containing an analytic enzyme that generates hydrogen peroxide~~, comprising the steps of:

making a pregel solution ~~with~~ containing an added analytic ~~enzyeme~~ enzyme which generates hydrogen peroxide and catalase where the catalase is added at a concentration ranging from about 100 units of catalase/mL pregel solution to about 1000 units catalase/mL pregel solution; and

polymerizing the pregel solution to form a polymer matrix and co-immobilize the analytic enzyme with the catalase in the polymer matrix.

16. (Previously Amended) The method of claim 15, wherein the polymer matrix has between about 0.5 mol % and about 6 mol % cross-linking monomers.

17. (Original) The method of claim 16, wherein the polymer matrix is formed to have a thickness when hydrated of between about 0.1 mm and about 3.0 mm.

18. (Original) The method of claim 16, wherein the analytic enzyme is glucose oxidase.

19. (Previously Cancelled)

20. (Previously Cancelled)

21. (Previously Added) The polymer matrix of Claim 1 in combination with a biosensor in which the polymer matrix is contained, the biosensor including means to monitor and detect changes in the polymer matrix.

22. (Previously Added) The polymer matrix-biosensor combination of Claim 21, wherein the biosensor is an analyte-responsive drug delivery device, wherein the polymer matrix changes in

response to an analyte condition, and wherein the changes in the polymer matrix control the drug delivery from the device.